

AMENDMENTS TO THE CLAIMS

Please amend Claims 1, 3, 4, 6-8, 11-13, and 15-17 as follows and cancel Claims 9, 10, and 18, without prejudice or disclaimer to continued examination on the merits:

1. (currently amended): A method for allowing a network element having network connections to a ring network to manage the network connections, the method comprising:

sending a connection state message from the network element around the ring network when the network element adds, deletes or modifies at least one timeslot within at least one of the network connections;

receiving the connection state message from the ring network, the connection state message having been updated by intermediate network elements that are part of the first ring network; and

managing the network connections connecting the network element to the ring network by using the received connection state message; and

at the intermediate network elements, using the received connection state message to manage their respective network connections to the ring network;

wherein the network connections including working and protect network connections,

wherein the network connections are permitted to be of different bandwidths,

wherein the connection state message includes timeslot concatenation information;

detecting failure of a span carrying one or more network connections;

reconfiguring, based on the connection state message, network elements adjacent to the failed span to reroute network traffic over the protect network connections; and

reconfiguring, based on the connection state message, the non-adjacent network elements not adjacent to the failed span to pass through network traffic entering from the protect network connections.

2. (original): The method according to claim 1, said sending step sending the connection state message from the network element around the ring network when the network element adds, deletes or modifies at least one of the network connections.
3. (currently amended): The method according to claim 1, said managing including detecting the addition ~~and/or~~ or deletion of timeslots at each of the network elements connected to the ring network.
4. (currently amended): The method according to claim 1, said managing including detecting the addition ~~and/or~~ or deletion of network connections at each of the network elements connected to the ring network.
5. (original): The method according to claim 1, said managing including storing current concatenation information during a ring switch operation of the ring network.
6. (currently amended): The method according to claim 1, said managing including squelching certain network ~~connection(s)~~ connections during a partial ring switch operation of the ring network.
7. (currently amended): The method according to claim 1, wherein the ~~configuration message~~ connection state message includes a message ID, a node ID, a span ID, a line ID, line timeslots information, timeslot concatenation state, and timeslot add/drop state information.
8. (currently amended): The method according to claim 1, wherein the network elements are ~~capable of~~ operable for adding, dropping, passing through, and interchanging timeslots within the network connections.

9. (canceled)

10. (canceled)

11. (currently amended): A communications system for managing network connections, comprising:

a plurality of network elements connected in a ring network configuration via the network connections;

at an originating network element, sending a connection state message around the ring network when the originating network element adds, deletes or modifies at least one timeslot within at least one of the network connections;

at the intermediate network elements, updating the connection state message with topology information stored at each of the intermediate network elements;

at the intermediate network elements, using the received connection state message to manage their respective network connections to the ring network;

at the originating network element, receiving the connection state message from the ring network, the connection state message having been updated by intermediate network elements that are part of the ~~first~~ ring network; and

at the originating network element, managing the network connections connecting the originating network element to the ring network by using the received connection state message;

wherein the network connections including working and protect network connections,

wherein the network connections are permitted to be of different bandwidths,

wherein the connection state message includes timeslot concatenation information;

at least some of said network elements detecting failure of a span carrying one or more network connections;

said network elements that are adjacent to the failed span reconfiguring, based on the connection state message, to reroute network traffic over the protect network connections; and

said network elements that are not adjacent to the failed span reconfiguring, based on the connection state message, to pass through network traffic entering from the protect network connections.

12. (currently amended): The system according to claim 11, wherein the managing of the network connections performed by the network elements includes detecting the addition ~~and/or~~ or deletion of timeslots at each of the network elements connected to the ring network.

13. (currently amended): The system according to claim 11, wherein the managing of the network connections performed by the network elements includes detecting the addition ~~and/or~~ or deletion of network connections at each of the network elements connected to the ring network.

14. (original): The system according to claim 11, wherein the managing of the network connections performed by the network elements includes storing current concatenation information during a ring switch operation of the ring network.

15. (currently amended): The system according to claim 11, wherein the managing of the network connections performed by the network elements includes squelching certain network ~~connection(s)~~ connections during a partial ring switch operation of the ring network.

16. (currently amended): The system according to claim 11, the ~~configuration message~~ connection state message includes a message ID, a node ID, a span ID, a line ID,

line timeslots information, timeslot concatenation state, and timeslot add/drop state information.

17. (currently amended): The system according to claim 11, said network elements being ~~capable of~~ operable for adding, dropping, passing through, and interchanging timeslots within the network connections.

18. (canceled)